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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
DELGADO, MICHAEL A

ART UNIT	PAPER NUMBER
2143	11

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-21_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-21_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _03 October 2000_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.
13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
    since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
    37 CFR 1.78.
    a) ☐ The translation of the foreign language provisional application has been received.
14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
    reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _9, 10_.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities: Page 11, line 22

replace "serer" with "server".

        Appropriate correction is required.

2.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

        The abstract should be in narrative form and generally limited to a single paragraph on a
separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed
150 words in length since the space provided for the abstract on the computer tape used by the
printer is limited. The form and legal phraseology often used in patent claims, such as "means"
and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist
readers in deciding whether there is a need for consulting the full patent text for details.

        The language should be clear and concise and should not repeat information given in the
title. It should avoid using phrases which can be implied, such as, "The disclosure concerns,"
"The disclosure defined by this invention," "The disclosure describes," etc.

Drawings

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they

include the following reference sign(s) not mentioned in the description: Page 23, LAN 818 and

820. A proposed drawing correction, corrected drawings, or amendment to the specification to

add the reference sign(s) in the description, are required in reply to the Office action to avoid

abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-3, 7, 9 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by US

Patent No, 6,041,347 by Harsham et al.

In claim 1, Harsham teaches about a distributed stack of programmable network devices,

the distributed stack comprising (Col 4, lines 25-45):

a first plurality of programmable network devices (Fig 1, E, F) the first plurality of

programmable network devices in communication via a first bus (Fig 1, 30), such that the first

plurality of programmable network devices includes a first plurality of modules "objects" (Col

2, lines 25-45) the first plurality of modules performing a first plurality of network protocols

(Col 2, lines 1-10);

a second plurality of programmable network devices (Fig 1, A, C), the second plurality of

programmable network devices in communication via a second bus (Fig 1, 36), such that the

second plurality of programmable network devices includes a second plurality of modules

"objects" (Col 2, lines 25-45), the second plurality of modules performing a second plurality of

network protocols (Col 2, lines 1-10);

wherein the first bus and the second bus are coupled via the Internet (Col 3, line 65- Col

4, line 15).

In claim 2, Harsham teaches about a distributed stack of claim 1, wherein the first plurality of network protocols includes a first application protocol (Col 2, lines 1-10), (Col 7, lines 60-67). Protocol is selectable

In claim 3, Harsham teaches about a distributed stack of claim 2, wherein the first plurality of network protocols includes a first network management protocol (Col 1, lines 45-60).

In claim 7, Harsham teaches about a distributed stack of claim 3, wherein the second plurality of network protocols includes a second application protocol (Col 4, lines 30-40), (Col 7, lines 60-67). Protocol is selectable.

In claim 9, Harsham teaches about a distributed stack of claim 7, wherein the second plurality of network protocols includes a second network management protocol (Col 2, line 58-Col 3, line 25). Grouping of network device and protocol are selectable

In claim 17, Harsham teaches about a method of loading a plurality of software modules "configuration file" on to a programmable network device (Col 2, lines 25-45), the programmable network device coupled to a LAN (Fig 1, 30) via a first interface and to an internerwork (Col 3, line 65- Col 4, line 15) via a second interface (Fig 1, 36), the method comprising:

sending a first module "configuration file" from the plurality of modules to the programmable network device via the internerwork (Col 5, line 60- Col 6, line 20); The central administrator identify the network device that is to be configured with the appropriate data.

loading the first module in the programmable network device (Col 5, line 60- Col 6, line 20);

executing the first module in the programmable network device, the first module performing a first network management function on the LAN (Col 5, line 60- Col 6, line 20);

sending a second module from the plurality of modules "configuration file" to the programmable network device via the internerwork (Col 5, line 60- Col 6, line 20);

loading the second module "configuration file" in programmable network device (Col 5, line 60- Col 6, line 20);

executing the second module in the programmable network device, the second module, performing a second network management function on the LAN (Col 5, line 60- Col 6, line 20).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 4, 8, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No, 6,041,347 by Harsham et al in view of US Patent No, 6,493,349 by Casey.

8.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.

    2.   Ascertaining the differences between the prior art and the claims at issue.

    3.   Resolving the level of ordinary skill in the pertinent art.

    4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

In claims 4, 8, 13 and 18 Harsham teaches all the limitation but does not explicitly teach about the distributed stack of claim 3, wherein the first application protocol is 2 one of an MPLS protocol, an IP Sec protocol, an L2TP protocol, and a firewall.

It is well known in the art that different virtual private networks (VPNs) (as describe by Harsham (Col 3, line 65- Col 4, line 15) although being a part of the same network system has different operating condition. Application protocols are created to best satisfy the specific need of the devices it supports. Casey teaches about an extended internet protocol virtual private network architectures, in which different protocols are utilized to accommodate the variation of the different VPNs (Col 3, lines 25-45).

It would have been obvious at the time of the invention for some one of ordinary skill to use standard protocols in order to support interoperability.

Virtual Private Network can be realized in many different forms. In order for a VPN to communicate with a different VPN, it is important that the differences between protocols are well understood. A standard protocol is well defined which make the conversion process going back and forth more reliable.

Claims 5, 10, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No, 6,041,347 by Harsham et al and US Patent No, 6,493,349 by Casey in view of US Patent No, 5,937,388 by Davis et al.

In claims 5, 10, 14 and 19, Harsham combined with Casey teaches all the limitation but

does not explicitly teach about the distributed stack of claim 4, wherein the first network

management protocol is one of an SLA function, an SNMP protocol, and a CMIP protocol.

It is well known in the art that different virtual private networks (VPNs) (as describe by Harsham

(Col 3, line 65- Col 4, line 15) although being a part of the same network system has different

operating condition. Application protocols are created to best satisfy the specific need of the

devices it supports. Davis teaches about a system and method for performing scalable

distribution of process flow activities in a distributed workflow management system, in which

different protocols are utilized to accommodate the variation of the different network entities

(Col 7, lines 55-60), (Col 9, lines 55-67).

It would have been obvious at the time of the invention for some one of ordinary skill to

use standard protocols in order to support interoperability.

Virtual Private Network can be realized in many different forms. In order for a VPN to

communicate with a different VPN, it is important that the differences between protocols are

well understood. A standard protocol is well defined which make the conversion process going

back and forth more reliable.

Claims 6, 11, 15-16 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable

over US Patent No, 6,041,347 by Harsham et al and US Patent No, 6,493,349 by Casey in view

of US Patent No, 6,567,783 by Notani et al.

In claims 6, 11, 15-16 and 20-21, Harsham combined with Casey teaches all the

limitation but does not explicitly teach about the distributed stack of claim 4, wherein the first

network management protocol is one of CORBA and XML.

It is well known in the art that different virtual private networks (VPNs) (as describe by

Harsham (Col 3, line 65- Col 4, line 15) although being a part of the same network system has

different operating condition. Notani discloses the advantage of using CORBA an XML in a

multi-domain environment (Col 3, lines 35-60).

It would have been obvious at the time of the invention for some one of ordinary skill to

use an object oriented approach in order to effectively model the complexity of a multi-domain

environment in order to support interoperability.

The complexity of network is better model using an object orientation approach. In object

orientation language, interfaces are well defined and the complexity of protocol conversion is

encapsulated in manageable modules. This supports code management and its implementation.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No,

6,041,347 by Harsham et al in view of US Patent No, 5,961,627 by Fok et al.

In claim 12, Harsham teaches about a programmable network device, wherein the

programmable network device couples a first computer network to a second computer network

(Col 4, lines 25-45), the programmable network device comprising:

two or more software modules " telnet and email" (Fig 7) (Col 7, lines 60-67), the

software modules encoded in a first language, the two or more modules including

a first module, wherein the first module executes an application service on packets routed

between the first network and the second network " telnet and email" (Fig 7) (Col 7, lines 60-67)

a second module, wherein the second module executes a network management service

on packets routed between the first network and the second network (Col 4, lines 25-45);

a real-time operating system, wherein the two or more software modules are executed on

the real-time operating system (Col 6, lines 40-60);

but does not explicitly teach wherein the programmable network device has a minimum

line rate of 1 gigabit per second.

LANs are used to support sharing among peer network devices. A Gigabit LAN was

disclosed by Fok (Col 2, lines 35-40).

It would have been obvious at the time of the invention for some one of ordinary skill to

use a gigabit LAN to increase the throughput.

The realization of the increase in CPU processing has being limited by the bottleneck of

10BaseT and 100BaseT networks. These networks are too slow to support CPU speed that is

much greater. To improve the distributed computing, a faster LAN is required which is realized

using a Gigabit LAN.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

US patent No. 648,0901 by Weberet et al, teaches about a system for monitoring and

managing devices on a network from a management station via a proxy server that provides

protocol converter

US patent No. US 6,101,508 by Wolff, teaches about a clustered file management for network resources.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is 703-305-8057. The examiner can normally be reached on 8 AM - 4.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703)308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

MD

DAVID WILEY
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